DPA Series Amplifiers ꞯSC™

Quick Start Guide

EXPLANATION OF TERMS AND SYMBOLS

The term "**WARNING!**" indicates instructions regarding personal safety. If the instructions are not followed the result may be bodily injury or death.

The term "**CAUTION!**" indicates instructions regarding possible damage to physical equipment. If these instructions are not followed, damage to the equipment could result that may not be covered under the warranty.

The term "**IMPORTANT!**" indicates instructions or information that are vital to the successful completion of the procedure.

The term "**NOTE**" indicates additional useful information.

⚡ The lightning flash with arrowhead symbol in a triangle alerts the user to the presence of uninsulated dangerous voltage within the product's enclosure that may constitute a risk of electric shock to humans.

⚠ The exclamation point within an equilateral triangle alerts the user to the presence of important safety, and operating and maintenance instructions in this manual.

⚠ **NOTE:** This Quick Start Guide assumes starting with the amplifier's basic factory configuration, with four separate inputs and four separate outputs. For detailed instructions for custom configurations refer to the DPA User Guide (TD-000367).

Rack Mount the Amplifier

1. Secure the amplifier in the rack with eight screws (not supplied)—four in front, four in back.
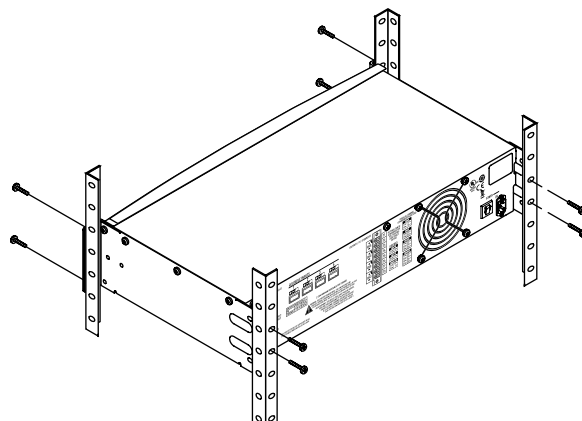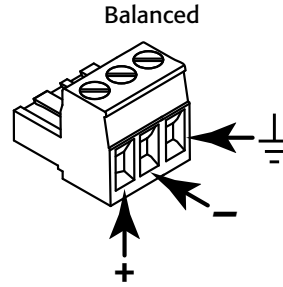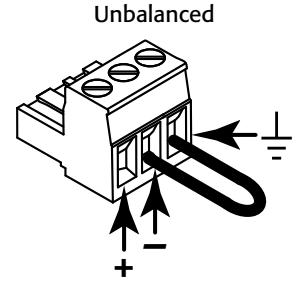

— Figure 1 —

TD-000433-00-B

Connections

Inputs

1. Wire the line-level audio sources to up to four Euro-style connectors (supplied). You may use either balanced (Figure 2) or unbalanced connections (Figure 3).

2. Plug the connectors into the appropriate receptacles (Routable Inputs 1, 2, 3, 4); see Figure 4.

3. Connect the IEC power cord to the AC receptacle on the rear of the amplifier (Figure 5).
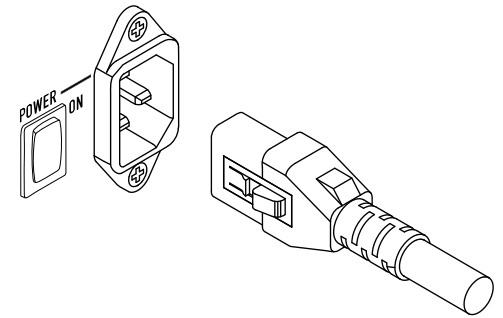
Balanced

Unbalanced

— Figure 2 —

— Figure 3 —

ROUTABLE INPUTS

GPIO

1   2   3   4

HEARTBEAT
GPIO

GPIO
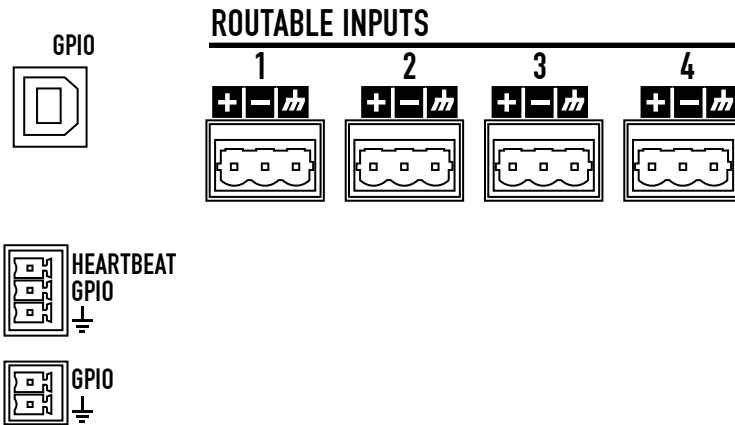
— Figure 4 —

— Figure 5 —

⚠ **WARNING!:** Do not turn the amplifier on yet.

Outputs

Note that changing the output configuration of the amplifier changes the outputs to the loudspeakers accordingly. Use the diagrams shown in Figure 6 thru Figure 8 as a reference for wiring the loudspeakers. After you connect the outputs to the loudspeakers you may turn the amplifier on.
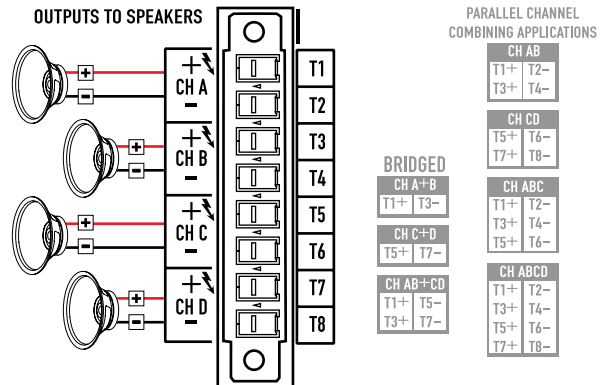
Separate Channels (A B C D)

Up to four separate loudspeaker loads

Use up to four 2-wire cables; connect to:
• T1+/T2- (Loudspeaker 1)
• T3+/T4- (Loudspeaker 2)
• T5+/T6- (Loudspeaker 3)
• T7+/T8- (Loudspeaker 4)

OUTPUTS TO SPEAKERS

PARALLEL CHANNEL
COMBINING APPLICATIONS

A	B	C	D
8.0	8.0	8.0	8.0
625	625	625	625
625	625	625	625

CH A — T1
T2
CH B — T3
T4
CH C — T5
T6
CH D — T7
T8

CH AB	
T1+	T2-
T3+	T4-

CH CD	
T5+	T6-
T7+	T8-

BRIDGED

CH A+B	
T1+	T3-

CH C+D	
T5+	T7-

CH AB+CD	
T1+	T5-
T3+	T7-

CH ABC	
T1+	T2-
T3+	T4-
T5+	T6-

CH ABCD	
T1+	T2-
T3+	T4-
T5+	T6-
T7+	T8-

— Figure 6 —

Bridged (A+B) and Separate (C D) Channels

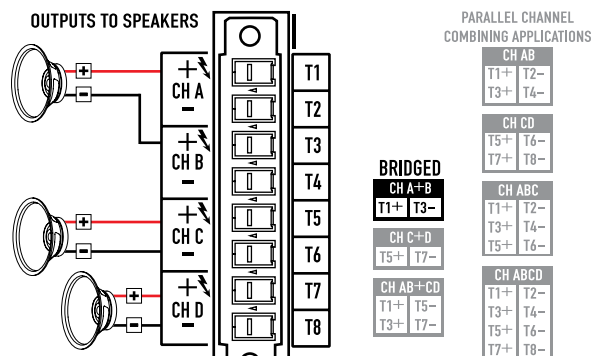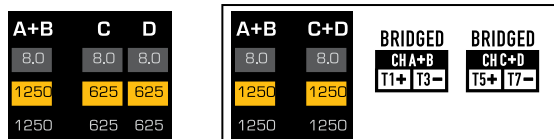### For A+B (bridged) to one loudspeaker load
Use one 2-wire cable; connect to:
- T1+/T3-

For C & D (separate) to two loudspeaker loads
Use two 2-wire cables; connect to:
- T5+/T6- for CH C
- T7+/T8- for CH D

— Figure 7 —

Parallel Channels (ABCD)
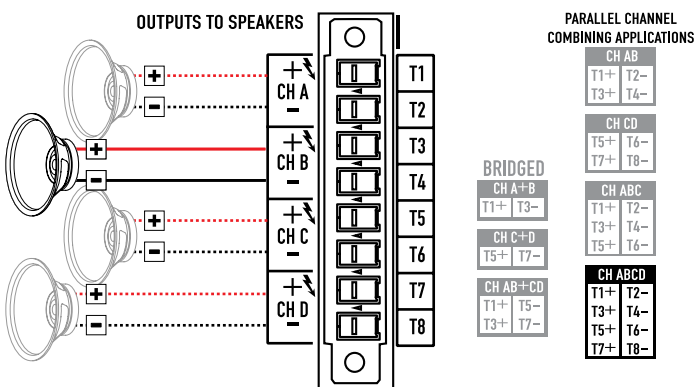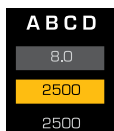
One loudspeaker load
Use one 2-wire cable; connect to:
- T3+/T4- *(or T5+/T6-)*

Multiple loudspeaker loads
Use up to four 2-wire cables; connect to:
- T3+/T4-
- T5+/T6-
- T1+/T2-
- T7+/T8-

In this mode:
- T1+, T3+, T5+, and T7+ are connected together electrically
- T2-, T4-, T6-, and T8- are connected together electrically

— Figure 8 —

Connect the Loudspeakers

1. Connect the loudspeaker wiring to the 8-pin Euro-style connector as needed for your amplifier's configuration.

2. Install the female 8-pin Euro-style connector onto the male connector on the rear of the amplifier as shown in Figure 9.

3. Use a Phillips screwdriver to secure the connector.
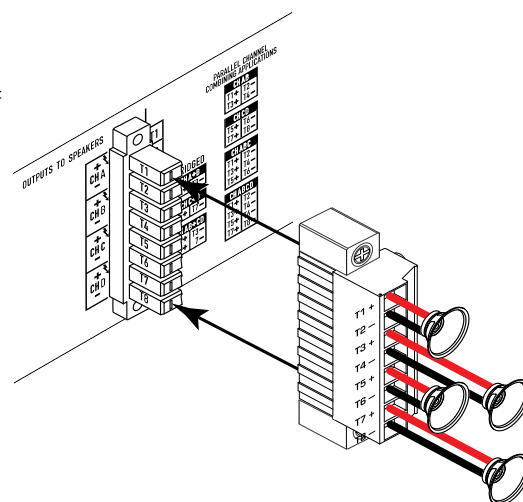
— Figure 9 —

DPA Amplifier Signal Flow

— Figure 10 —

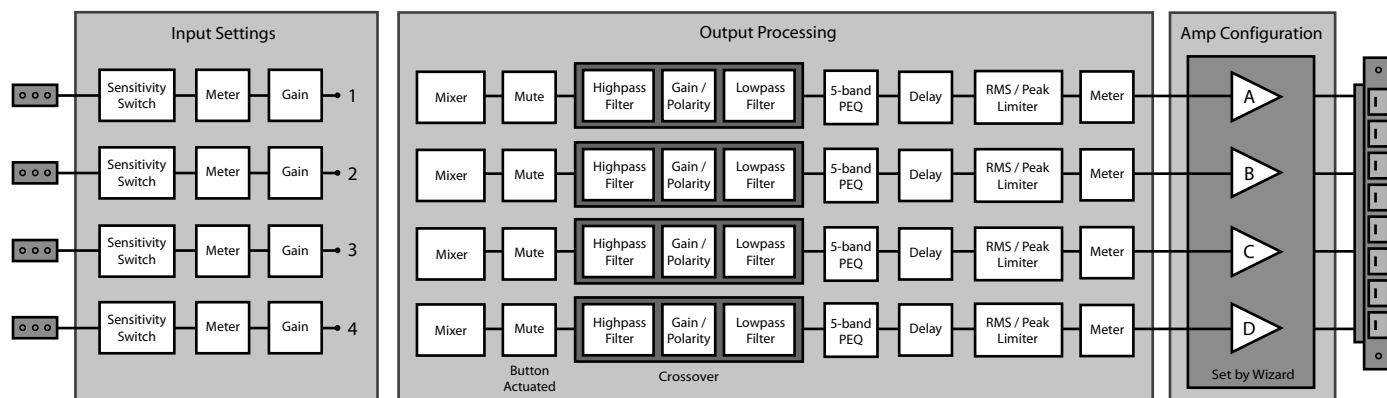# Amplifier Control

Off Mode

- Rear power switch is off; the amplifier is not operable. The power switch is the AC Mains disconnect.
- The power button is not lit.
- To apply power, turn the power switch on. The amplifier enters the Run Mode; the power button turns blue.

Run Mode

- From Standby or Mute All modes, press and release the power button on the front panel.
- The power button is blue.
- The amplifier is fully operable; audio can pass.

Standby Mode

- From Mute All or Run modes, press and hold the power button on the front panel.
- The power button is solid red.
- The amplifier is not operable; audio will not pass.

Mute All Mode

- From the Run Mode, press and release the power button.
- The power button flashes red.
- The front panel and DSP functionality are fully operable. Any changes you make are saved and take effect in the Run Mode.

Master Control Knob

- Scrolls up/down and right/left to select menu items and parameters
- Adjusts parameters

ENTER Button

- Navigates into the menu structure
- Enters the edit mode for adjusting parameters
- Confirms the changes you make

EXIT Button

- Navigates out of the menu structure and parameter selection.
- In the edit mode, pressing EXIT reverts the value back to its prior state, and exits the edit mode.

HOME Button

- If you are on the Home screen, pressing HOME displays the alternate Home screen. Pressing HOME again returns you to the primary Home screen.
- If you are on a navigation screen, pressing HOME takes you to the Home screen.
- If you are on an edit screen, pressing HOME will confirm any value being edited and take you to the Home screen.
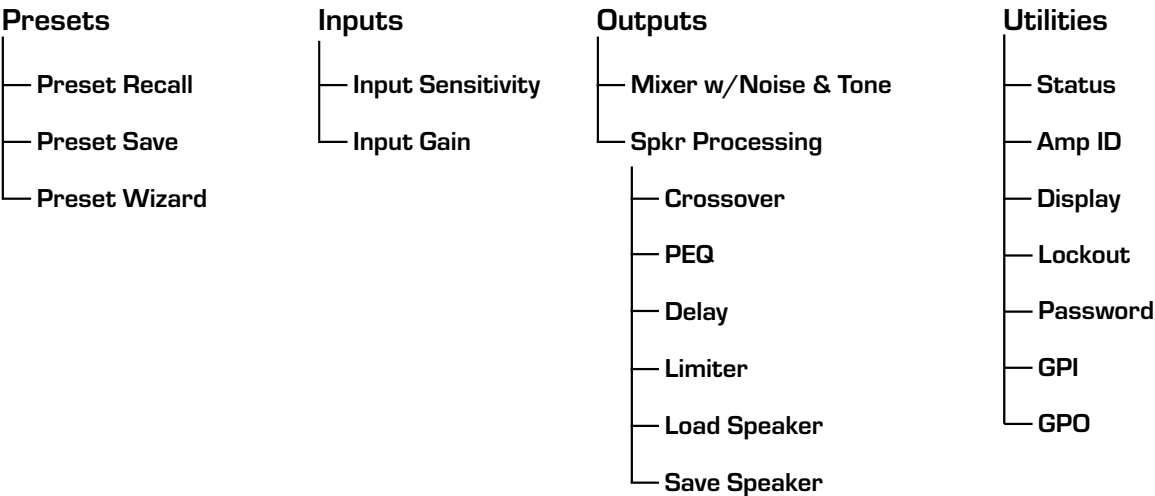
GAIN Button

- Pressing the GAIN button from any screen takes you to the output gain screen for the most recently accessed output channel.
- Pressing GAIN again confirms the gain change and returns to the screen you were on when you pressed GAIN.

SEL Buttons

- Use these buttons to navigate between input channels or output channels. For example, if you are adjusting output gain on channel A, pressing the channel B SEL button takes you to the gain adjustment for channel B.
- These buttons change both input and output selection at the same time. For example, if you select Output A then switch to an Input screen, you are on Input 1.
- The SEL buttons are active on the Home page, Main Menu, and any Input or Output screen.
- The SEL buttons illuminate blue for output channels, and amber for input channels.
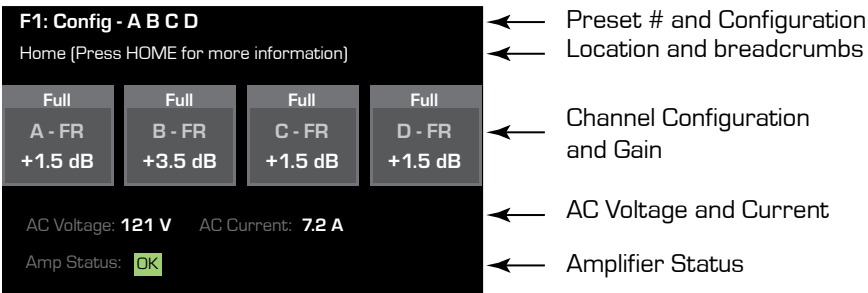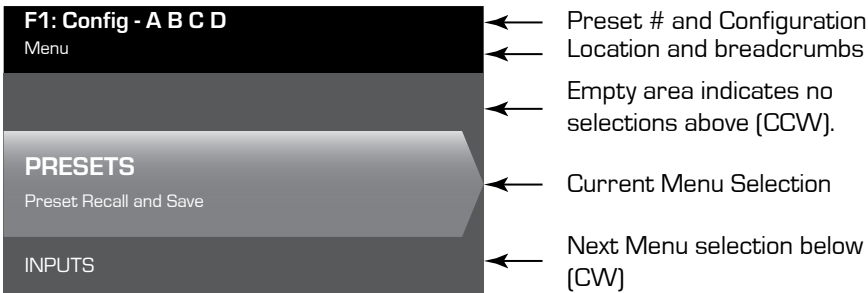
Menu Tree

Presets
— **Preset Recall**
— **Preset Save**
— **Preset Wizard**

Inputs
— **Input Sensitivity**
— **Input Gain**

Outputs
— **Mixer w/Noise & Tone**
— **Spkr Processing**
  — **Crossover**
  — **PEQ**
  — **Delay**
  — **Limiter**
  — **Load Speaker**
  — **Save Speaker**

Utilities
— **Status**
— **Amp ID**
— **Display**
— **Lockout**
— **Password**
— **GPI**
— **GPO**

Screen Types

Informational

Informational screens, like the HOME screen, provide a good amount of useful information at a glance.

| F1: Config - A B C D | Preset # and Configuration |
| Home (Press HOME for more information) | Location and breadcrumbs |

Full	Full	Full	Full
A - FR	B - FR	C - FR	D - FR
+1.5 dB	+3.5 dB	+1.5 dB	+1.5 dB

Channel Configuration and Gain

AC Voltage: **121 V**   AC Current: **7.2 A** ← AC Voltage and Current

Amp Status: OK ← Amplifier Status

— Figure 11 —

Navigational
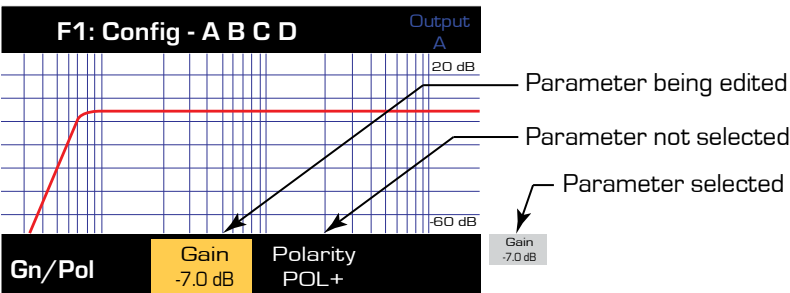
Navigational screens are for selecting menu items. Use the Master Control knob and the ENTER and EXIT buttons to navigate and select.

F1: Config - A B C D ← Preset # and Configuration
Menu ← Location and breadcrumbs

Empty area indicates no selections above (CCW).

PRESETS
Preset Recall and Save ← Current Menu Selection

INPUTS ← Next Menu selection below (CW)

— Figure 12 —

Parameter Editing

Parameter editing screens allow you to select, edit, and confirm changes for various system parameters. Use the ENTER button to edit and confirm changes to parameters. Use the Master Control knob to select a parameter and make adjustments. Use the EXIT button to exit the edit mode without saving changes.

F1: Config - A B C D   Output A

20 dB

Parameter being edited

Parameter not selected

Parameter selected

-60 dB

| Gn/Pol | Gain -7.0 dB | Polarity POL+ | Gain -7.0 dB |

— Figure 13 —

Presets

The DPA amplifiers are preset driven, so to get the most out of the amplifiers an understanding of how presets work is essential. A preset, in the context of the DPA amplifiers, is a combination of amplifier configuration and DSP processing; recalling a preset can change the output routing and wiring and/or any DSP processing.
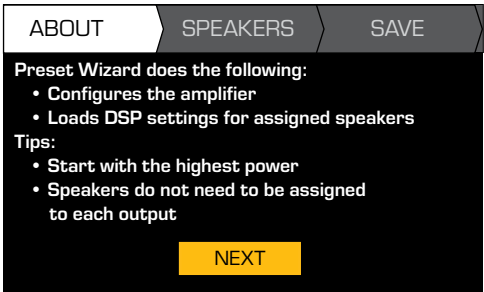
Preset Creation

A preset can be created in two ways. The first is to modify an existing preset, then save this as a new one; the second is to use the Preset Wizard to create a preset from scratch.

Preset Wizard

The Preset Wizard simplifies the preset creation process, and allows the user to create a preset from the ground up. The Wizard provides a mechanism for the user to select his desired power and load. Based on these selections, the best amplifier configuration is selected and the user is then allowed to select and assign loudspeakers to each output.
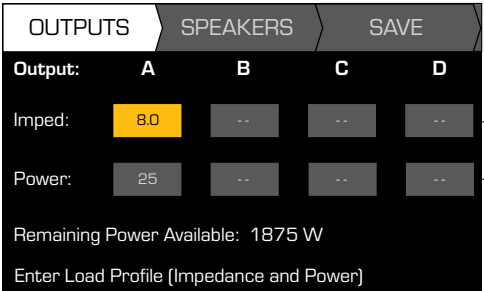
To start the Preset Wizard: **HOME > PRESETS > PRESET WIZARD > ENTER**

STEP 1 — About the Preset Wizard

ABOUT	SPEAKERS	SAVE

Preset Wizard does the following:
- **Configures the amplifier**
- **Loads DSP settings for assigned speakers**

Tips:
- **Start with the highest power**
- **Speakers do not need to be assigned to each output**

NEXT

HOME > PRESETS > PRESET WIZARD > ENTER > ENTER

STEP 2 — Adjust impedance and power

OUTPUTS	SPEAKERS	SAVE

Output:	A	B	C	D
Imped:	8.0	--	--	--
Power:	25	--	--	--

Remaining Power Available: 1875 W

Enter Load Profile (Impedance and Power)

← Default = 8 Ω

← Default = min. for amp

Adjust Impedance
Adjust Power

To confirm, press [ENTER]

Adjust Impedance based on the total loudspeaker load connected to the channel.

Possible Output Mode Combinations using the Preset Wizard

A	B	C	D
8.0	8.0	8.0	8.0
625	625	625	625

A+B	C	D
8.0	8.0	8.0
1250	625	625

A+B	C+D
8.0	8.0
1250	1250

A B + C D
8.0
2475

A B C D
8.0
2500

Modes:
A B = Separate Channels
A+B = Bridge Mode
AB = Parallel Mode

— Figure 14 —

STEP 3 — Select output channel for speaker assignment

OUTPUTS	SPEAKERS		SAVE
Output:	**A**	**B**	**C**	**D**
Imped:	8.0	8.0	8.0	8.0
Power:	625	625	625	625
Spkr:	- - - -	- - - -	- - - -	- - - -
	Assign	Assign	Assign	Assign

When you are finished setting the Impedance and Power for each output, scroll to the SPEAKERS tab.

Loudspeaker assignment is optional. You can assign a loudspeaker to one or more channels, or none at all.

Scroll to select the output channel.

To assign a loudspeaker, press ENTER

Continue to the next Step.

STEP 4 — Select speaker type for channel

OUTPUTS	SPEAKERS	SAVE

Output: A

Speaker: SR1030
Band: 2-Way LF
Filter: 80 Hz

ASSIGN

Band and filter selections are based on the speaker you select.
You must select a loudspeaker before selecting band and filter.

To edit speaker, press ENTER
Scroll to select a speaker model
To confirm, press ENTER
Scroll to select (Band, Filter)
To edit, press ENTER
Turn to adjust parameter
To confirm, press ENTER
Scroll to select ASSIGN
To assign the speaker to the output channel, press ENTER

STEP 5 — Save Wizard Preset

OUTPUTS	SPEAKERS	SAVE

User Preset Number: 21
New Preset Name

◀ C o n f i g   -   A ▶

SAVE

Edit preset number or press EXIT

Scroll to the Save screen

To edit User Preset number, press   ENTER

To name and save the preset,
Complete steps 1 thru 3 under
"To Save a New User Preset"

STEP 6 — Name the loudspeaker profile

ABOUT	SPEAKERS	SAVE

User Preset Number: 21
New Preset Name

◀ M y   S p k r   ▶

SAVE

Press ENTER to edit name

Indicates editing

Indicates "Speaker Profile Name" is selected

Up to 21 characters
A - Z / a - z / 0 - 9 /
_ / - / space

To add Speaker Profile Name, press **Enter**.

Scroll to desired letter position; press **Enter**.

Turn to select desired character; press **Enter**.

When finished, scroll to SAVE; press **Enter**.

Saving Presets

Presets can be modified and saved using the Save Preset menu. You can start with a Factory Preset (F<*n*>: <*name*>), make modifications, and then save it as a User Preset (U<*n*>: <*name*>). You cannot overwrite Factory Presets. There are two ways to save presets: overwrite an existing User Preset, or save a new User Preset.

To overwrite a User Preset, **HOME > PRESETS > PRESET SAVE > ENTER**

Overwrite Preset

U1: Config - A B C D

SAVE

Press ENTER to save preset

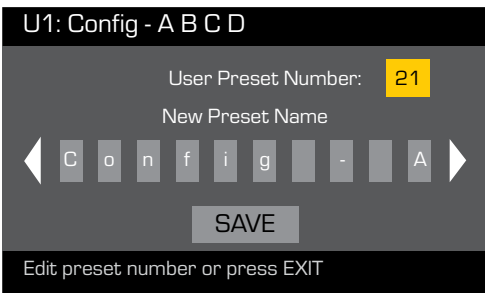To save, press [ENTER]

To exit without saving, press [EXIT]

To confirm the save, press [ENTER]

To save a new User Preset, **HOME > PRESETS > PRESET SAVE AS > ENTER**

STEP 1 — Select and Edit Preset Number

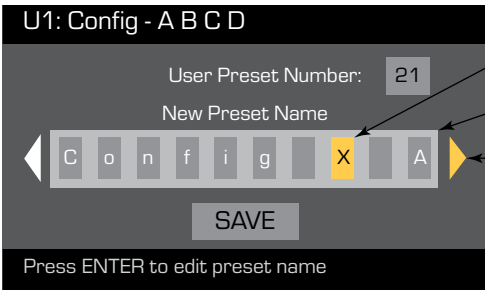U1: Config - A B C D

User Preset Number: 21

New Preset Name

◄ C o n f i g - A ►

SAVE

Edit preset number or press EXIT

To edit User Preset number, press [ENTER]

Scroll to desired number (1 thru 50) (dial)

To confirm User Preset number, press [ENTER]

STEP 2 — Name the Preset

U1: Config - A B C D

User Preset Number: 21

New Preset Name

◄ C o n f i g X A ►

SAVE

Press ENTER to edit preset name

— Indicates editing
— Indicates New Preset Name selection
— Indicates more positions

Scroll to New Preset Name (dial)
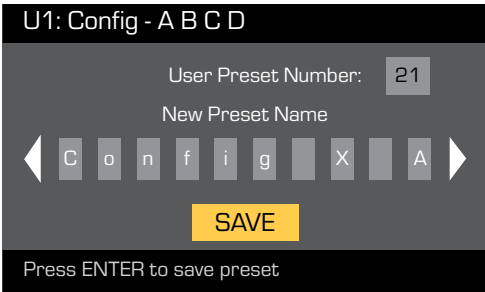
Press [ENTER]

Scroll to desired position (dial)

Press [ENTER]

Up to 21 characters, A - Z / a - z / 0 - 9 / _ / - / space

STEP 3 — Save Preset

U1: Config - A B C D

User Preset Number: 21

New Preset Name

◄ C o n f i g X A ►

SAVE

Press ENTER to save preset

When you are finished naming, press [EXIT]

Scroll to SAVE (dial)

Press [ENTER]
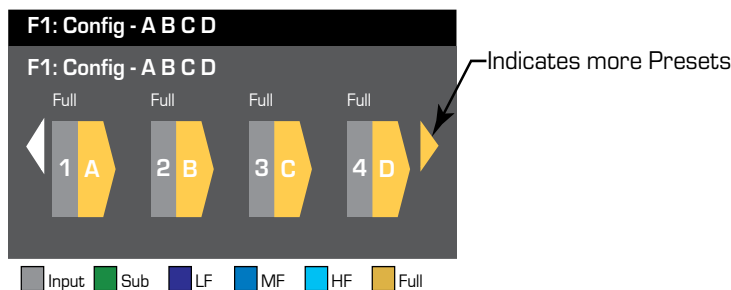
To confirm Save, press [ENTER]

Recalling Presets

Recalling a preset changes the configuration of the amplifier. You can recall factory or user-defined presets. To overwrite a User Preset,
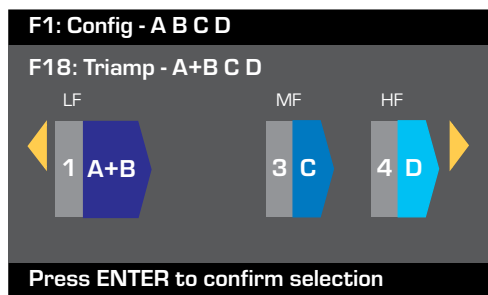
HOME > PRESETS > PRESET RECALL > ENTER

STEP 4 — Select Preset

F1: Config - A B C D

F1: Config - A B C D

Full Full Full Full

1 A 2 B 3 C 4 D

Indicates more Presets

Input Sub LF MF HF Full

Scroll to desired Preset
20 Factory, up to 50 User-defined

STEP 5 — Confirm Selection

F1: Config - A B C D

F18: Triamp - A+B C D

LF MF HF

1 A+B 3 C 4 D

Press ENTER to confirm selection

To select the Preset configuration, press   [ENTER]

To Confirm the selection, press   [ENTER]

Bottom message changes to: "Recalling Preset now..."
You may hear relays clicking

Utilities

The Utilities section provides the following amplifier information and functionality: Please refer to the DPA User Manual for complete details.

- STATUS
- ID
- Serial Number
- LOCKOUT
- PASSWORD
- GPIO

QSC

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If you would like a full copy of the DPA User manual, visit the QSC website at www.qsc.com, or contact Customer Service +1 714 957-7150 or toll free (USA only) (800) 772-2834 to receive a copy by mail.

Si desea obtener una copia completa del manual del usuario de la DPA, visite el sitio web de QSC en www.qsc.com, o póngase en contacto con el Servicio al Cliente al +1 714 957-7150 o sin costo (sólo en EE.UU.) al (800) 772-2834 para recibir una copia por correo.

Pour obtenir un exemplaire complet du manuel d'utilisation de la DPA, allez sur le site Web QSC à www.qsc.com ou contactez le service clientèle au +1 714 957-7150 ou au (800) 772-2834 (numéro vert - USA seulement) pour recevoir un exemplaire par courrier.

Ein vollständiges Exemplar des Benutzerhandbuchs für die DPA finden Sie auf der QSC Website unter www.qsc.com. Sie können sich unter +1 714 957-7150 oder unter der (nur in den USA) gebührenfreien Nummer +1 (800) 772-2834 auch an den Kundendienst wenden, um sich ein Exemplar zuschicken zu lassen.

如果您需要 DPA 产品用户手册的完整副本，请访问 QSC 网站 www.qsc.com，或致电客户服务部门 +1 714 957-7150，或拨打免费电话（仅限美国）(800) 772-2834 通过邮件获取副本。